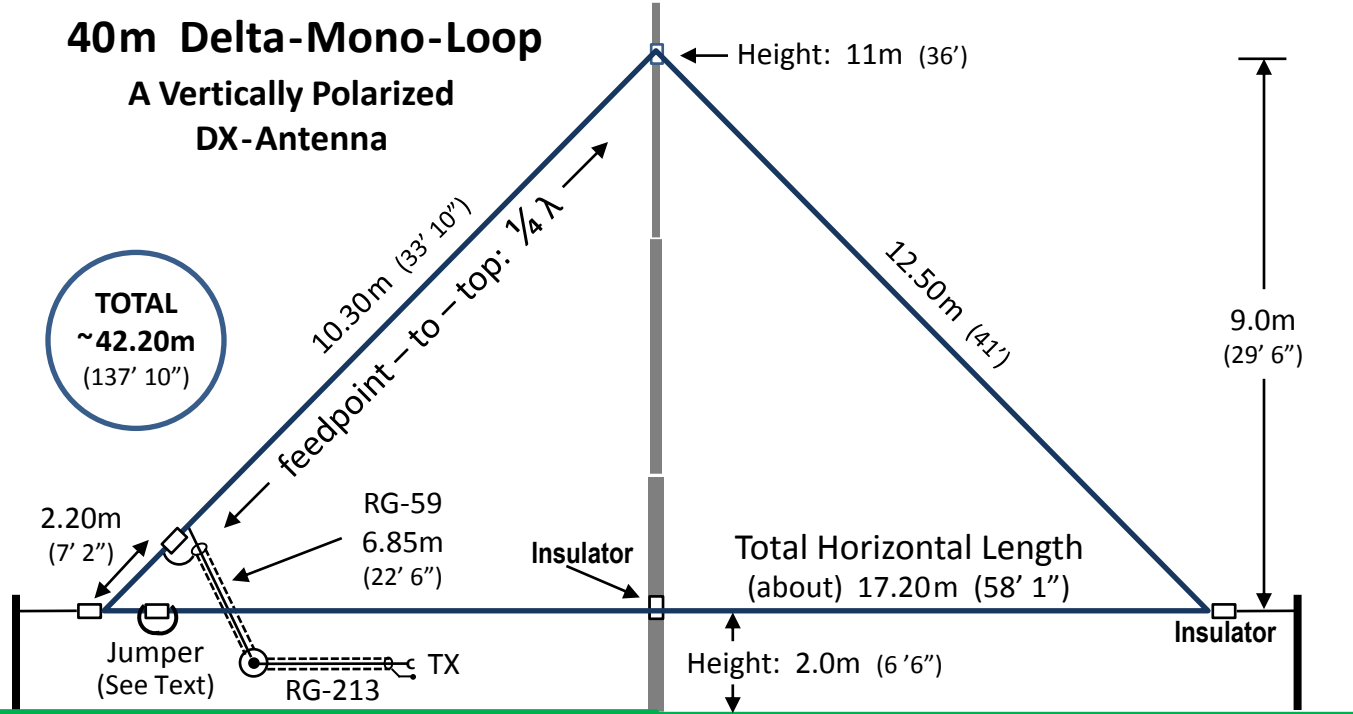


40m Delta-Mono-Loop

A Vertically Polarized DX-Antenna



DESCRIPTION:

A **vertically polarized** full wavelength loop, with more or less **Omni-directional** radiation (due to the low height, requiring **NO RADIALS**. NOTE: though good for DX, stations within 500 miles may be stronger on a simple dipole.

CONSTRUCTION DETAILS:

- The pole should be about 12m high (minimum 11m). (39'4" to 36'). Higher is better, but then you will have to re-adjust the total length for resonance.
- The feedpoint is located in either diagonal side near one corner of the antenna, enabling vertical polarization. This makes the antenna an excellent DX antenna.
- The length of the diagonal is not very critical and may be adjusted to help find a better fit in the space available, but the distance from the feedpoint to the top should be **one quarter wavelength**.
- The exact total length will vary depending on ground conditions at your QTH. Begin with 42.7m (137' 10") and then shorten the horizontal leg to bring the resonance up to the desired frequency.
- Adjust total length by adjusting the length of the horizontal wire. (Easiest way).
- The horizontal leg of the antenna on the bottom should be 2 to 3m high (6'6" to 9'10") high enough for humans and animals to walk under. Changes to the height will require adjusting overall length.
- The insulator shown directly on the pole at the 2m level is for mechanical reasons. Secure the insulator to the pole, and then pass the horizontal leg through the insulator, reducing sag in the horizontal leg.
- The insulator in the horizontal leg near the left is an option for convenience. It enables easy adjustment for resonance by removing or adding wire. For disassembly, disconnect one side from the insulator and then roll the antenna as a single wire. Each time I changed my QTH, I had to re-adjust the length of the jumper. I just let the jumper wire hang down. For permanent use, you may leave this out.
- The antenna will have an impedance between 90Ω and 100Ω. A quarter wavelength matching stub of 75 Ohm coax will provide a good match to 50Ω. RG-59 is good enough for about 500w. If you want to run more power, use RG-11.